



Lake O' The Pines in East Texas saw very low water levels in October 2012. Recent drought impacts to the entire state, including usually rainy East Texas, have motivated some lawmakers to call for the Legislature to act.

Photo by Robert Burns, Texas A&M AgriLife Communications.



WORTH IT?

Weighing the costs of implementing the state water plan and the consequences of doing nothing

In Texas, ensuring water security for a burgeoning population dependent on diminishing water supplies is nothing if not complicated.

The closest thing to a clear solution to Texas' water woes is the state water plan, experts say. Every five years, the Texas Water Development Board (TWDB) publishes the plan, which is composed of science-based contributions from the state's 16 regional water planning groups.

Created after the 1950s drought, TWDB is equipped by the state to provide loans to local governments for needed water supply projects identified during their regional water planning process. The state water plan takes into account all water users and lays out strategies over a 50-year planning horizon.

However, legislators haven't funded the plan in previous years due to other looming budget priorities and the plan's total capital cost. Some insiders have predicted that it will receive some sort of dedicated funding source during the 83rd Legislative Session, while others have wondered if the current political climate can tolerate the large financial undertaking. On January 10, state Rep. Allan Ritter filed two bills: HB 4, proposing "the creation and funding of the state water implementation fund for Texas to assist the Texas Water Development Board in the funding of certain water-related projects," and HB 11, providing "for an appropriation of money from the Economic Stabilization Fund to finance certain water-related projects."*

Facing Texas' water realities

These three numbers give a snapshot of the economic side of Texas' water situation: 1.1 million, 26.9 billion and 140.

1.1 million people—that's just slightly less than the city of Dallas' current population.

It's also the number of Texans who would lose their jobs by 2060 if drought of record conditions recurred and water management strategies identified in the state water plan were not implemented, according to TWDB data projections.

\$26.9 billion—that's the estimated total state financial assistance requested by regional water planners, out of the \$53.1 billion total capital cost needed to implement the water plan.

However, this assistance would not be direct appropriation funds, officials said, but instead would be low-interest loans to the local and regional entities that will actually implement and construct the plan's water supply projects. According to TWDB, of the \$26.9 billion, all of the principal and the majority of the interest would be paid back to the state.

140 days—that's how long Texas' 83rd Legislature will convene.

During those five months, legislators such as Ritter are aiming to make progress towards ensuring the state's water supplies.

The state has the facts, and it has a plan to prevent the 2060 projected water supply shortfall of 8.3 million acre-feet. The question is—what's going to be done with that plan?

An unimplemented plan

The state water plan is the envy of other states, experts say—it's comprehensive, far-reaching, bottom-up. It involves the people, the planners, the number-crunchers. It looks back and also plans ahead.

"It's great that we have regional water planning groups, with this bottom-up planning process because people can look at what their needs are at the local and regional level," said Tom Mason, a former general manager of the Lower Colorado River Authority. Mason currently practices water and environmental law in Austin.

But, experts such as Mason ask, what's the use of a great plan if it is not implemented?

"It's an excellent document, and compared to other states I think Texas does a great job of preparing a water plan, but a plan implies a prelude to action, and implementation is really important," Mason said. ➡

**Editor's note: At press time, these bills had received support from several interests groups, but the water plan's future was still uncertain, dependent on the coming weeks' discussion in the Legislature.*



“Planning is important, but implementing the plan is critical,” said Carolyn Brittin, TWDB deputy executive administrator.

Brittin said the longer Texas procrastinates on beginning the projects, the more vulnerable the state will be during drought and the more costly it will be to implement the needed projects in the future.

Breaking down the price tag

Total capital cost of \$53.1 billion is enough to stop taxpayers in their tracks, but officials said not only is the price tag spread out over the 50-year planning period, only \$26.9 billion of the total would come from the state, in the form of low-interest loans.

“No matter what state funding mechanism is chosen or used to fund the plan, local and regional water providers and their customers will repay 100 percent of the capital costs to construct the projects, as well as the majority of the interest,” Brittin said. “\$27 billion in projects does not mean \$27 billion in appropriations.”

Heather Harward serves as executive director of the H₂O4TEXAS Coalition, a nonprofit organization working to mobilize public support for implementation of the plan.

Harward said \$26.9 billion is “still a substantial number, but what that boils down to is something along the lines of approximately \$150 million a year, according to most of the models coming out of the water development board and the Legislature.

“That money is loaned—it’s not given away, and these are not grants,” Harward said. “This is the state partnering with local entities to provide the most fiscally conservative financing options for implementing the plan.”

She said the low-interest loans would involve benefits that are very important when implementing major infrastructure projects.

“The ability to use low-interest deferred loans, through state participation, gives projects more time before they start paying back, which is very critical when you’re talking about some of these projects that take years of engineering and design,” Ritter said.

According to TWDB, every \$1 billion in financial assistance provided for water plan projects, over the course of project implementation, will generate \$1.75 billion in sales revenues in the construction, engineering and materials sectors and supporting businesses; create \$888.8 million in state gross domestic product; add \$43.9 million in state and local tax receipts; and create or support nearly 13,077 jobs in the state. Supporters say the benefits of the plan will outweigh the costs.

“And, again, the annual revenue number is so important—\$150 million,” Harward said. “Of course that’s still a significant amount, but relative to the state’s overall annual budget it’s microscopically small. And what gets so lost in this conversation is that not only are these loans, and the money ultimately flows back to the state, but also that with a lack of implementation, costs will only continue to increase.”

Evaluating the plan

The loans would fund a diverse list of projects and strategies that each region has identified as needed to meet future water demands. The strategies vary widely in terms of cost.

“Aquifer storage and recovery and desalination are more so long-term strategies because of cost,” Brittin said.

Municipal conservation is the most cost-effective way to ensure the state’s water supply, she said.

“The state water plan calls for almost a fourth of the ‘new water’ to come from conservation, and that’s terrific,” Mason said. “I’d love to see us focus on that first and foremost because it’s the cheapest, the fastest, the most efficient way to make ‘more’ water available.”

According to the plan, municipal conservation strategies are expected to result in about 650,000 acre-feet of supply by 2060, with irrigation conservation and other conservation strategies totaling another 1.5 million acre-feet per year. Regional water plans contain detailed proposals on the specific water conservation projects needed, Brittin said.

Prioritization of projects is an area in which the plan could improve, Mason said.

“It’s over 500 individual water supply projects and strategies, but it is not prioritized,” Mason said. “That’s really important. If there’s going to be any sort of state funding involved, I think we need to have some serious conversations at the state level, at the Legislature and water agencies, about how to grapple with which projects are best for the state as a whole and how do we prioritize them.”

Brittin said funding realities serve to help regions prioritize strategies.

“I think you see that when regions recommend projects to be implemented in the plan, there’s an inherent prioritization there, in that those that are more costly are recommended for later decades of the planning cycle, as opposed to those that are more cost effective and easier to implement today, those are recommended in the earlier decades,” she said.



“Due to the cost of seawater desalination and some of the permitting issues that exist around it, we’re seeing that recommended in later decades in the plan, like 2050 or 2060.”

The “do-nothing plan”

Even with the plan’s potential shortcomings, the consensus among water-minded legislative leadership seems to be that kick-starting implementation of the water plan is preferable to doing nothing.

“Last year’s devastating drought made it clear that something needed to be done,” said House Speaker Joe Straus at an October 2012 *Texas Tribune* event on water. “The ‘do-nothing plan’ is not one we should consider.”

Currently, with the plan not implemented, a repeat of drought of record conditions would present Texas with an immediate water shortage of 3.6 million acre-feet annually, according to TWDB. If the state follows the “do-nothing plan,” TWDB estimates that by 2060 Texas businesses’ and workers’ lost income would total roughly \$116 billion. Foregone state and local business taxes associated with lost commerce would total \$9.8 billion.

“Climatologists’ predictions seem to suggest that the drought is not going to subside anytime in the immediate future,” Harward said. “So I think we’ll continue to feel the pain throughout the state, which will result in economic losses, if we don’t take bold action now.” ➡

A center-pivot irrigation system near Pilot Grove, Texas. Photo by Robert Burns, Texas A&M AgriLife Communications.





Plan gains momentum

"I've had senators and representatives from all over the state talking to me about water—and that's been a first for me," Ritter said. "The reason for that is for the first time in my lifetime, every part of the state of Texas felt the (2011) drought to the extreme. Even where I live, where we get 45 to 60 inches of rain, we felt it—to the extent that if we would have had another year of no rain, we wouldn't have had the water to provide our area. That's scary."

"So, the dynamics are different than they were before 2011."

Whether other pressing budget issues will overshadow legislators' recollections of the historic 2011 drought is yet to be seen. If current drought conditions worsen, will pressure on lawmakers to take action on water increase? Or if conditions ease, will the previous drought fade from their memories like it was just a bad dream?

"I have watched this issue from different vantage points since the passage of Senate Bill 1 in 1997," Harward said. "And I see more momentum than I ever have before. The drought was an unfortunate catalyst, and I believe the drought culminated with our outreach efforts as well as those by the leaders in the Legislature on this issue."

Ritter chairs the House Natural Resources Committee, which is tasked with keeping an eye on drought and water supply issues.

"You can't have a functional society without water resources—it can't happen," Ritter said. "And, what we know, just from the years of developing a state water plan, is that the cost of developing new water resources is skyrocketing."

"The smart thing for us to do would be to start on this critical path of developing water resources and not have what years ago was about \$20 billion in costs, and is now \$53 billion, end up being \$100 billion."

Funding options

Ritter said he anticipates that members will propose various scenarios for funding mechanisms and hopes to see creative solutions for meeting these funding needs.

One funding mechanism that is more viable than it was last session, Harward said, is an investment from the Economic Stabilization Fund—commonly referred to as the Rainy Day Fund. According to the Texas Comptroller's Office, the fund currently holds more than \$8 billion, generated largely by oil and gas production taxes. Following the state's 1986 economic slump, as noted in comptroller documents, voters approved a constitutional amendment creating the fund in the November 1988 general election.

"That's a revenue source that I've long advocated for and thought was a great fit, because the

Economic Stabilization Fund by name just fits hand-in-glove with the water plan because we can prove immediate job growth and both short- and long-term economic development (would result from implementation). So to me it seems like the perfect marriage, considering the issue and the intention of those dollars," Harward said.

Some experts say lawmakers may be warming up to the idea of using a portion of the fund for water purposes, and Ritter's HB 11 proposes such a plan.

Support from other interest groups regarding increased state spending on water is also developing. At the Texas Farm Bureau's annual meeting in December 2012, members voted in favor of the state developing a source of revenue, either through a dedicated fund or from the Rainy Day Fund, to make implementation of the state water plan possible.

"We understand the state water plan will be expensive, and we need a dedicated revenue source to fund it," said Bureau President Kenneth Dierschke in a press release. "Recognizing that agriculture is one of the major water users in the state, we want to be part of the solution."

The Texas Association of Businesses has also chimed in, voicing support in fall 2012 for increased fees on water use and vehicle registrations to fund state investment in water and transportation infrastructure.

Staying ahead of the curve

"We are close to being so far behind the curve (on water) that catching up will be difficult," Ritter said. "I'm very concerned about that. You could say the same thing for highways, but I think we're a little further behind the curve on water than we are on transportation. And I'm sorry that it costs money, but it does cost money."

"Yes, the plan is asking for money, but we're trying to get across that this is a good investment, and it is one that is going to improve job growth and economic prosperity," Harward said.

And so, all eyes turn to the Legislature and the long list of issues facing Texas lawmakers in 2013. Will water make the cut? Or will the plan continue to be just a plan?

"It's a priority—it's a priority of leadership and of members of the Legislature, but also of 'we the people,'" Ritter said. "The Legislature cannot solve this problem all by itself. Each one of us, working with our local entities, is responsible, too."

"But it is solvable. We know that. With the state water plan, with the road map, we know that we can develop water resources as new innovations come along, as we learn better management technologies and continue doing a better job."

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